

CLAIMS OF THE APPLICATION:

1. (currently amended) A compound which is a crystalline Form III of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 1.

2. (currently amended) The compound of claim 1, having an X-ray powder diffraction pattern, expressed in terms of 2 theta angles, that includes five or more peaks selected from the group consisting of 4.44 ± 0.09 , 6.81 ± 0.09 , 7.80 ± 0.09 , 9.28 ± 0.09 , 11.09 ± 0.09 , 11.89 ± 0.09 , 12.92 ± 0.09 , 13.46 ± 0.09 , 14.34 ± 0.09 , 15.77 ± 0.09 , 16.24 ± 0.09 , 17.08 ± 0.09 , 18.06 ± 0.09 , 18.75 ± 0.09 , 19.25 ± 0.09 , 19.59 ± 0.09 , 19.99 ± 0.09 , 20.34 ± 0.09 , 21.18 ± 0.09 , 21.96 ± 0.09 , 22.18 ± 0.09 , 22.58 ± 0.09 , 23.24 ± 0.09 , 23.77 ± 0.09 , 24.08 ± 0.09 , 25.02 ± 0.09 , 25.31 ± 0.09 , 25.78 ± 0.09 , 26.67 ± 0.09 , 27.39 ± 0.09 , 28.03 ± 0.09 , 30.26 ± 0.09 , 35.50 ± 0.09 , and 38.74 ± 0.09 degrees.

3. (canceled).

4. (original) The compound of claim 1, having a differential scanning calorimetry thermogram which exhibits a significant endotherm peak at about 80°C .

5. (original) The compound of claim 4, having substantially the same differential scanning calorimetry thermogram as shown in Figure 2.

6. (original) The compound of claim 1, having an infrared absorption spectrum with absorption bands at about 3291 cm^{-1} , about 3029 cm^{-1} , about 2935 cm^{-1} , about 2795 cm^{-1} , about 1292 cm^{-1} , about 1727 cm^{-1} , about 1643 cm^{-1} , about 1611 cm^{-1} , about 1537 cm^{-1} , about 1436 cm^{-1} , about 1225 cm^{-1} , about 1171 cm^{-1} , about 1087 cm^{-1} , about 1028 cm^{-1} , about 986 cm^{-1} , about 922 cm^{-1} , about 860 cm^{-1} , about 764 cm^{-1} , about 686 cm^{-1} , and about 533 cm^{-1} .

7. (original) The compound of claim 6, having substantially the same infrared spectrum as that shown in Figure 3.

8. (currently amended) A composition comprising (S)-repaglinide as a solid, wherein at least 80% by weight of said solid (S)-repaglinide is in its crystalline Form III, which has having an X-ray powder diffraction pattern, expressed in terms of 2 theta angles, that includes five or more peaks selected from the group consisting of 4.44 ± 0.09 , 6.81 ± 0.09 , 7.80 ± 0.09 , 9.28 ± 0.09 , 11.09 ± 0.09 , 11.89 ± 0.09 , 12.92 ± 0.09 , 13.46 ± 0.09 , 14.34 ± 0.09 , 15.77 ± 0.09 , 16.24 ± 0.09 , 17.08 ± 0.09 , 18.06 ± 0.09 , 18.75 ± 0.09 , 19.25 ± 0.09 , 19.59 ± 0.09 , 19.99 ± 0.09 , 20.34 ± 0.09 , 21.18 ± 0.09 , 21.96 ± 0.09 , 22.18 ± 0.09 , 22.58 ± 0.09 , 23.24 ± 0.09 , 23.77 ± 0.09 , 24.08 ± 0.09 , 25.02 ± 0.09 , 25.31 ± 0.09 , 25.78 ± 0.09 , 26.67 ± 0.09 , 27.39 ± 0.09 , 28.03 ± 0.09 , 30.26 ± 0.09 , 35.50 ± 0.09 , and 38.74 ± 0.09 degrees.

9. (currently amended) The composition of claim 8, wherein at least 90% by weight of said solid (S)-repaglinide is the crystalline Form III.

10. (currently amended) The composition of claim 8, wherein at least 95% by weight of said solid (S)-repaglinide is the crystalline Form III.

11. (currently amended) The composition of claim 8, wherein at least 99% by weight of said solid (S)-repaglinide is the crystalline Form III.

12. (currently amended) The composition of claim 8, wherein said solid (S)-repaglinide is substantially free of its crystalline Forms I and II of (S)-repaglinide.

13. (currently amended) The composition of claim 8, wherein at least about 1% of said solid (S)-repaglinide is not the crystalline Form III.

14. (currently amended) The composition of claim 8, wherein at least about 5% of said solid (S)-repaglinide is not the crystalline Form III.

15. (currently amended) A pharmaceutical composition ~~comprising~~ formed by combining:

a) a compound which is a crystalline Form III of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 1; ~~the compound of claim 1,~~ and

b) a pharmaceutically acceptable carrier or diluent.

16. (original) The pharmaceutical composition of claim 15, further comprising one or more pharmaceutically acceptable excipients.

17. (original) The pharmaceutical composition of claim 16, which is a solid dosage form for oral administration.

18. (original) The pharmaceutical composition of claim 17, wherein said solid dosage form is a tablet.

19. (currently amended) A process for preparing ~~preparation of~~ a crystalline Form III of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 1, said process comprising:

(a)- providing a solution of (S)-repaglinide in a haloalkane solvent;

(b)- contacting said solution with a C₅-C₁₀ aliphatic or alicyclic hydrocarbon anti-solvent thereby forming a precipitate; and

(c)- isolating the precipitate to provide ~~, which is~~ the crystalline Form III of (S)-repaglinide.

20. (original) The process of claim 19, further comprising drying the isolated precipitate.

21. (currently amended) The process of claim 19, wherein ~~the providing step (a)~~ includes mixing a powder of ~~the starting~~ (S)-repaglinide with the haloalkane solvent to form said solution.

22. (currently amended) The process of claim 21, wherein said powder of the ~~starting~~ (S)-repaglinide is a solid form of (S)-repaglinide selected from the group consisting of crystalline Form I of (S)-repaglinide, crystalline Form II of (S)-repaglinide, and amorphous (S)-repaglinide.

23. (original) The process of claim 19, wherein the haloalkane solvent is selected from the group consisting of dichloromethane, chloroform, and dichloroethane.

24. (currently amended) The process of claim 19, wherein the C₅-C₁₀ aliphatic or alicyclic hydrocarbon anti-solvent is a C₅-C₇ aliphatic or alicyclic hydrocarbon.

25. (currently amended) The process of claim 19, wherein the C₅-C₁₀ aliphatic or alicyclic hydrocarbon anti-solvent is selected from the group consisting of petroleum ether, hexane, n-heptane, cyclohexane, and cycloheptane.

26. (currently amended) The process of claim 19, wherein the concentration of said solution in step (a) is from about 0.25 gram to about 1 gram of (S)-repaglinide per milliliter of the haloalkane solvent.

27. (currently amended) The process of claim 19 ~~26~~, wherein the concentration of said solution in step (a) is from about 0.4 gram to about 0.6 gram of (S)-repaglinide per milliliter of the haloalkane solvent.

28. (currently amended) The process of claim 19 ~~27~~, wherein the concentration of said solution in step (a) is about 0.5 gram of (S)-repaglinide per milliliter of the haloalkane solvent.

29. (currently amended) The process of claim 19, wherein the ratio of said haloalkane to said C₅-C₁₀ aliphatic or alicyclic hydrocarbon in step (b), measured volume-to-volume, ranges from about 1:1 to about 1:5, respectively.

30. (currently amended) The process of claim 19, wherein said ratio of said haloalkane to said C₅-C₁₀ aliphatic or alicyclic hydrocarbon in step (b), measured volume-to-volume, is about 1:3, respectively.

31. (currently amended) The process of claim 19, wherein ~~the contacting step~~ (b) includes adding said C₅-C₁₀ aliphatic or alicyclic hydrocarbon to said solution.

32. (original) The process of claim 19, wherein said C₅-C₁₀ aliphatic or alicyclic hydrocarbon anti-solvent is petroleum ether.

33. (original) The process of claim 32, wherein said haloalkane is dichloromethane.

34. (currently amended) A compound which is the crystalline Form III of (S)-repaglinide produced by the process of claim 19.

35. (currently amended) A compound which is the crystalline Form III of (S)-repaglinide produced by the process of claim 33.

36. (currently amended) A process for preparing ~~preparation of~~ a crystalline Form III of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 1, said process comprising:

- (a) dissolving (S)-repaglinide in dichloromethane to form a solution;
- (b) adding petroleum ether to the solution to form a precipitate; and
- (c) isolating the precipitate to provide, ~~which is~~ the crystalline Form III of (S)-repaglinide.

37. (currently amended) The process of claim 36, wherein the concentration in step (a) of the dichloromethane solution is from about 0.4 to about 0.6 gram of (S)-repaglinide per milliliter of dichloromethane, and the ratio of dichloromethane to petroleum ether in step (b), measured volume- to-volume, ranges from about 1:1 to about 1:5, respectively.

38. (currently amended) A compound which is an amorphous form of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 4.

39. (canceled).

40. (currently amended) A process for making an amorphous form of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Figure 4, said process comprising:

- (a) providing a solution of (S)-repaglinide ~~as a solution~~ in a lower alcohol;
- (b) cooling said solution so that a solid mass separates; and
- (c) isolating said separated solid mass to provide ~~, which is~~ the amorphous form of (S)-repaglinide.

41. (original) The process of claim 40, further comprising drying said isolated solid mass.

42. (currently amended) The process of claim 40, wherein ~~said providing~~ step (a) includes mixing a powder of the ~~starting~~ (S)-repaglinide and the lower alcohol, and heating the mixture to a temperature of from about 35°C to about 70°C until the solution is formed.

43. (currently amended) The process of claim ~~42~~ 40, wherein the mixture is heated to a temperature from about 45°C to about 55°C.

44. (currently amended) The process of claim 40, wherein the solution of (S)-repaglinide in step (b) is cooled to a temperature from about 0°C to about 5°C.

45. (currently amended) The process of claim ~~40~~ 44, wherein ~~said powder of the starting the~~ (S)-repaglinide in step (a) is selected from the group consisting of crystalline Form I of (S)-repaglinide, crystalline Form II of (S)-repaglinide, and crystalline Form III of (S)-repaglinide.

46. (original) The process of claim 40, wherein the lower alcohol is selected from the group consisting of methanol, ethanol, n-propanol, isopropanol, n-butanol, isobutanol, and *t*-butanol.

47. (original) The process of claim 40, wherein the lower alcohol is methanol.

48. (currently amended) A compound which is the amorphous form of (S)-repaglinide produced by the a process of claim 40.

49. (canceled).

50. (currently amended) A process for preparing ~~preparation of~~ a crystalline Form II of (S)-repaglinide, having an X-ray powder diffraction pattern substantially as shown in Table 3, said process comprising:

(a) providing a solution of (S)-repaglinide in ~~a solvent containing an~~ aromatic hydrocarbon solvent, with the proviso that said solvent does not include petroleum ether;

(b) cooling said solution ~~thereby~~ to separate a solid mass ~~separates~~; and

(c) isolating said solid mass to provide the ~~, which is said~~ crystalline Form II of (S)-repaglinide.

51. (currently amended) The process of claim 50, wherein said solvent in step (a) does not include any aliphatic hydrocarbon components.

52. (canceled)

53. (currently amended) The process of claim 50, wherein said aromatic hydrocarbon solvent in step (a) is selected from the group consisting of benzene, toluene, ethyl benzene, and xylene.

54. (currently amended) The process of claim 50, wherein said aromatic hydrocarbon solvent in step (a) is toluene.

55. (canceled)

56. (currently amended) The process of claim 50, wherein ~~the providing step (a)~~ includes mixing a powder of ~~the starting (S)-repaglinide~~ with the aromatic hydrocarbon solvent and heating said mixture to form the solution.

57. (original) The process of claim 50, further comprising drying the isolated solid mass.